In November 1987, when we adopted service rules and technical standards for the 821-824/866-869 MHz bands, the Commission employed, with modifications, recommendations made by NPSPAC in a plan (National Plan) that comprised both national and regional elements.[192] The Commission explained that, while certain technical concerns had to be addressed at the national level, the great diversity of needs in different areas of the Nation required the development of regional plans closer to the State and local levels.[193]

110. Within the framework of the National Plan, the United States was divided into regions that would have as much autonomy as possible to develop plans that met their different communications needs.[194] The Commission, according to the National Plan, would address certain common national requirements, such as those pertaining to channeling, trunking, and technical standards to control interference.[195] Once the national requirements were adopted, committees made up of members of the public safety community were to develop regional plans that would focus on the spectrum requirements of all eligible entities, and determine how the available spectrum could best be used to satisfy these requirements.[196] The Commission's role in relation to the regional planning committees was limited to: (1) defining the regional boundaries; (2) requiring fair and open procedures; (3) specifying the elements that all regional plans were to include; (4) reviewing and accepting the plans, or rejecting them with an explanation; and (5) reviewing and accepting requests for modification of the plans, or rejecting them with an explanation.[197] Thus, the Commission established nationwide rules where appropriate, while still providing sufficient flexibility to allow regional planners to tailor solutions to local public safety problems.[198]

111. We tentatively conclude that this dichotomy between national and regional elements has achieved its stated purpose of balancing our primary regulatory objectives of maximizing spectrum efficiency, and ensuring that the system has sufficient flexibility to accommodate the wide variety of communications requirements in different areas of the

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[192] *NPSPAC Report and Order*, 3 FCC Rcd at 905 (paras. 1, 4).

[193] *Id.* at 905 (para. 4).

[194] *Id.* at 906 (para. 10). *See also NPSPAC Plan NPRM*, 2 FCC Rcd at 2870 (para. 7).

[195] *NPSPAC Report and Order*, 3 FCC Rcd at 906 (para. 10).

[196] *Id.*

[197] *Id.* at 910-11 (paras. 41-57).

[198] *Id.* at 905, 907 (paras. 4, 14).

Nation.[199] We propose, therefore, to use the regional planning approach again to provide for the most appropriate use of that portion of the public safety spectrum that is not devoted to interoperability. We seek comment regarding this proposal, as well as any other alternatives for the administration of the spectrum.

112. Although we believe this regional planning approach has been satisfactory with regard to the 821-824/866-869 MHz bands,[200] we take this opportunity to encourage commenters to suggest refinements and improvements to the organization and operation of the regions and the regional planning committees. For example, should we designate one or more frequency coordinators to have a formal role in the regional planning process? And if so, what should that role be, and which frequency coordinators should be so designated? In formulating their comments, we ask parties to consider our regulatory goals of ensuring equitable distribution of frequencies, promoting efficient use of spectrum, and minimizing the burden on both the public safety service providers and the regional planning committees. We also note that there may be areas of the Nation that may have an acute need for spectrum for public safety communications. We ask for comment as to whether, in such areas of the Nation, we should reserve a small amount of spectrum from the 746-806 MHz band and assign that spectrum prior to the completion of the area's regional plan. We also seek comment regarding what specific rules would be necessary for the Commission to assign licenses apart from a regional planning process.

113. NPSPAC recommended fifty-four regions in it Final Plan,[201] and the Commission adopted the regions largely as proposed.[202] There are currently fifty-five regions,[203] the boundaries of which are generally contiguous with the boundaries of a State.[204] In drawing

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[199] *See id.* at 906 (para. 11).

[200] Plans have been accepted for all the regions; the latest was accepted in August 1993. *1995 FCC Public Safety Report*, 10 FCC Rcd at 5227.

[201] Final Report of the National Public Safety Planning Advisory Committee to the Federal Communications Commission, GEN Docket No. 87-112, Sept. 9, 1987.

[202] *NPSPAC Report and Order*, 3 FCC Rcd at 910 (paras. 41-43), 916 (App. B). In Texas, for which NPSPAC proposed six regions, the Commission created a single region, and the Commission declined to create a multi-state region around Chicago. These deviations from the NPSPAC recommendations, however, were reversed on reconsideration. *See NPSPAC First Reconsideration Order.*

[203] *NPSPAC First Reconsideration Order*, 3 FCC Rcd at 2114-15 (App. A).

[204] *Id.* Exceptions include California (divided into two regions), Texas (divided into six regions), the metropolitan regions surrounding New York, Washington, D.C., Chicago, and Buffalo, and the multi-state New England region. Where regional lines are not drawn at State borders, they are drawn at county borders, *e.g.*,

regional boundaries, the Commission considered the possibility that fewer regions might offer the benefits of greater uniformity and broader coordination.[205] The Commission concluded, however, that larger regions would necessarily entail a more complex planning process, and that the process could be further slowed if the number of political jurisdictions in a region were increased.[206] The Commission also concluded that larger regions might be less responsive to local needs and characteristics, which could in turn lead to an increase in waiver requests. Such requests might involve the Commission in purely local matters to an undesirable extent.[207]

114. We continue to believe that evaluation to be correct, and therefore propose to retain the boundaries of current regions. Minor modifications may be needed depending upon the comments we receive. We seek comment regarding our proposal. We recognize, however, that the experience gained over the past decade may indicate the need for adjustments of a region's boundaries. In particular, we invite comment regarding whether the boundaries of the multi-state regions that serve metropolitan areas are at present drawn along optimal lines, and whether any other such multi-state metropolitan regions should be created.[208]

115. We seek comment regarding whether we should retain the existing regional planning committees, and adopt a requirement that the regional planning committees must incorporate the 746-806 MHz bands into their regional plans. We also seek comment regarding whether we should follow an alternative approach, under which we would dissolve the present regional committees and convene new regional committees in their place. We tentatively conclude that the benefits of continuity, of expertise, and of minimizing the administrative burden on both planners and users outweigh any benefit that would accrue from disbanding the current regional planning committees and formulating new ones. We therefore propose to retain the existing committees, with at most minor modifications to their boundaries, and to add the 746-806 MHz band to the 821-824/866-869 MHz bands that the planning committees have been using to create regional plans. We seek comment regarding this proposal.

Region 5, California, South, is drawn to the northernmost borders of San Luis Obispo, Kern, and San Bernardino Counties.

[205] *NPSPAC Report and Order*, 3 FCC Rcd at 910 (para. 42).

[206] *Id.*

[207] *Id.*

[208] Cincinnati, St. Louis, and Kansas City, for example, have metropolitan areas that extend over more than one region.

116. We propose that the chairpersons of the regional planning committees, or their designated substitute conveners, would be required to publicize a meeting to begin the process of incorporating the 746-806 MHz bands into new regional plans, allowing at least 60 days for appropriate public notifications. We further propose that public safety service providers and other parties interested in participating in the regional planning process should contact the appropriate chairperson or convener, and that, as was provided in the 1987 National Plan, officials responsible for national security and emergency preparedness within the region should be notified of the initial planning meeting and invited to participate.[209] We invite commenters to suggest other specific groups or officials that should be invited, such as State telecommunication officials, and specific notification or outreach measures that should be required to publicize the initial planning meeting or subsequent planning meetings. The *NPSPAC Report and Order* instructed committees to adopt operating procedures to govern their operations to ensure that all entities would be treated fairly in the planning process.[210] We invite commenters to address the adequacy of these procedures in ensuring the equitable distribution of frequencies among eligible entities, and to evaluate any need for instituting procedural guidelines for the committees.

117. The *NPSPAC Report and Order* required regional plans to include, at a minimum, the following elements:

- A cover page that clearly identified the document as the regional plan for the defined region.
- The name of the regional planning chairperson, including mailing address and telephone number.
- The names of the members of the regional planning committee, including organizational affiliations, mailing addresses, and telephone numbers.
- A summary of the major elements of the plan.
- A general description of how the spectrum would be allotted among the various eligible users within the region.

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[209] *See NPSPAC Report and Order*, 3 FCC Rcd at 910 (para. 47). The National Plan called on APCO, acting pursuant to its frequency coordination responsibilities, to convene a meeting to initiate the planning process in each region. For each region, APCO appointed a local convener responsible for organizing and publicizing the first planning meeting. APCO provided the Chief, Private Radio Bureau, FCC, with a list of the conveners and their addresses, and each convener set a date for the initial planning meeting, allowing at least 60 days for appropriate public notifications.

[210] *Id.* at 910-11 (para. 48).

- An explanation of how the requirements of all eligible entities within the region were considered and, to the degree possible, met.
- An explanation as to how needs were assigned priorities in areas where not all eligible entities could receive licenses.
- An explanation of how the plan had been coordinated with adjacent regions.
- A detailed description of how the plan put the spectrum to the best possible use by requiring system design with minimum coverage areas, by assigning frequencies so that maximum frequency reuse and offset channel use may be made, by using trunking, and by requiring small entities with minimal requirements to join together in using a single system where possible.
- The signature of the regional planning chairperson.[211]

We propose to continue to require the inclusion of these elements in any regional plan, to the extent that the elements are consistent with the rules adopted in this proceeding.[212] We also invite comment regarding whether these listed elements should be amended to include any additional provisions, or whether the current elements require clarification or reformulation.

118. Under the National Plan, after the Commission received a plan from a regional planning committee, we solicited public comment on the plan for 30 days, with 15 days to reply to any comments filed, and then either approved the plan as submitted, or returned the plan to the regional planning committee with reasons for its rejection.[213] During the review process, the Commission considered the plans and the comments and replies, giving due deference to the need to allow the regional plans to accommodate regional differences.[214] The Commission examined the plans to ensure that public safety needs were fully addressed and met to the greatest degree possible, that the spectrum had been used efficiently, that coordination with adjacent regions had occurred, and that all requirements of the National Plan were met.[215] The Commission either accepted the regional plan by issuing an order to

[211] *Id.* at 911 (para. 51).

[212] For example, if we do not adopt the use of offset channels, we would not require regions to maximize the assignment of such frequencies.

[213] *NPSPAC Report and Order*, 3 FCC Rcd at 911 (paras. 53-54).

[214] *Id.* at 911 (para. 55).

[215] *Id.*

that effect, or returned the plan to the regional planning chairperson with reasons for its rejection.[216] We tentatively conclude that this procedure appropriately balanced the requirements of fairness and efficiency in review of the regional plans, and we propose that the new plans incorporating the 746-806 MHz bands continue to be thus reviewed, and set forth for public comment, before being adopted or returned with an explanation to the regional planning committee. We seek comment regarding this proposal.

119. The regional plans typically require modification from time to time.[217] At present APCO, acting in its frequency coordination role, or the regional planning chairperson may recommend, in writing, changes to a regional plan.[218] The Commission gives public notice soliciting comment on any such proposals, and issues appropriate orders upon review.[219] We tentatively conclude that this process has been satisfactory, and propose to adopt it again as the mechanism by which future regional plans incorporating the 746-806 MHz bands may be modified. We seek comment regarding this proposal. We recognize, however, that, as with other aspects of the regional planning process, this proceeding presents an opportunity to make appropriate revisions to the process, and we invite comment regarding ways that the modification procedures could be improved. Specifically, we invite commenters to address the requirement that regions wishing to modify their plans must obtain the express concurrence of adjacent regional planning committees to the proposed modifications prior to submitting them for our approval.

2. Eligibility and Licensing of General Use Channels

120. Regarding the channels in the public safety spectrum that are not reserved for interoperability, we tentatively conclude that the Commission should limit eligibility to entities that provide public safety services, as defined for this spectrum in the Communications Act.[220] We have proposed a definition of public safety service provider to facilitate this

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[216] *Id.*

[217] *See, e.g.*, Public Notice, The Philadelphia Area (Region 28) Public Safety Regional Update Committee Announces the Opening of an Application Filing Window for the 821-824/866-869 MHz Band, Report No. WT 97-21, May 1, 1997; Public Notice, The Chicago Regional Planning Committee for Public Safety Announces the Opening of an Application Filing Window for the 821-824/866-869 MHz Band, 11 FCC Rcd 8782 (1996); Houston, Texas, Public Safety Plan (Region 51), Order, 11 FCC Rcd 11828 (1996).

[218] *NPSPAC Report and Order*, 3 FCC Rcd at 911 (para. 57).

[219] *Id.*

[220] Section 337(f)(1) of the Communications Act, 47 U.S.C. § 337(f)(1), as added by the Balanced Budget Act of 1997, § 3004. Regarding the issue of eligibility to use the channels in the 746-806 MHz bands that are reserved for interoperability, we refer commenters to the discussion in Section II.B.2.d., *supra*, paras. 85-95.

determination.[221] We further tentatively conclude that the regional planning committees should, as an element of their regional plans, specify precisely which groups within the broad categories of the statutory definition they suggest should receive frequencies within their regions. Allowing the regions to adopt plans for assigning frequencies for the non-interoperability channels would advance our goal of extending to the individual regions the flexibility to design plans tailored to their local needs.[222]

121. As with the present regional planning process, in some regions it may be impossible to grant the requests for assignments of everyone who is eligible to use the new public safety spectrum. We continue to believe, however, that the regional planning committees are in the best position to determine which services and entities are of the greatest importance to public safety in their regions. We tentatively conclude that our review of the regional plans, and the opportunity for public comment during the review process, will sufficiently ensure the adoption of fair and reasonable assignments. We invite comment regarding these tentative conclusions.

122. We also seek comment regarding whether the Commission should prescribe rules or guidelines for determining if a service meets the statutory definition of a public safety service, *i.e.*, that its sole or principal purpose is to protect the safety of life, health, or property.[223] We seek comment as well regarding whether the Commission should prescribe substantive or procedural rules for the authorization of non-governmental organizations by governmental public safety service providers, as provided in Section 337(f)(1)(B)(ii) of the Communications Act.[224]

123. In the preceding paragraphs we have discussed how regional planning committees could develop plans that would enable the Commission to assign licenses to applicants in a way that would best meet regional needs. Such planning for the orderly and optimal assignment of licenses would continue the role that the regional planning committees have played in developing plans for the assignment of licenses in the 821-824/866-869 MHz band. In the sections that follow, by contrast, when we speak of the regional planning committees, we ask commenters to consider whether the role of these committees should be enlarged to include some of the more technical matters that up to now have been decided by the Commission.

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[221] *See* paras. 75-76, *supra.*

[222] *See NPSPAC Report and Order*, 3 FCC Rcd at 905 (para. 4).

[223] *See* Section 337(f)(1) of the Communications Act, 47 U.S.C. § 337(f)(1), as added by the Balanced Budget Act of 1997, § 3004.

[224] 47 U.S.C. § 337(f)(1)(B)(ii), as added by the Balanced Budget Act of 1997, § 3004.

3. Provision and Use of Public Safety Channels

124. The following is a discussion of various issues relating to the provision and use of the general public safety spectrum. Earlier in this Notice we discussed these same issues in the context of the interoperability spectrum. With respect to interoperability, our goal is to develop rules that will enable spectrum to be used to facilitate effective interoperability communications. To achieve interoperability, it is necessary for users to operate under the same parameters. For example, we propose to provide for common transmission technologies and common channel spacing among users of the interoperability spectrum. With the assignment of the general use spectrum, however, our goal is to provide a regulatory framework that will enable a variety of types of communications, and to facilitate utilization of an array of innovative technologies for the public safety community. In this Section we therefore seek comment on various matters that will assist us in developing such a framework.

125. One important matter that we invite commenters to explore will be the nature of the Commission's role in developing a band plan for the assignment of the 746-806 MHz public safety spectrum. When we developed service rules for the 821-824/866-869 MHz spectrum in 1987, the Commission decided matters such as: (1) the spacing for the channels (*i.e.*, we chose 12.5 kHz spacing); (2) the total number of channels to be assigned (*i.e.*, we provided 230 channels for general assignment and 5 channels for mutual aid); and (3) how the channels would be used (*i.e.*, we permitted voice and data communications). We left it to the individual regions to decide which applicants would obtain authorizations, where their base stations would be located, and under what technical parameters their stations would operate (*e.g.*, power and antenna height).[225]

126. We now consider whether the Commission, in providing for the use of the 746-806 MHz spectrum, should follow the approach we took in 1987 regarding the development of service rules, or whether we should alter this approach in some respects. Specifically, we must determine, in the context of the 746-806 MHz spectrum, what technical and operational issues will be decided at the national level (*i.e.*, by the Commission) and what issues can and should be decided at the local level (*e.g.*, by the regions). We examine this broad question in the context of the following discussion dealing with the provision and use of the general public safety channels.

a. Types of Communication

127. In this Section, we address the issue of which types of communications should be made available to public safety users operating in the 746-806 MHz band. While we recognize that different regions of the Nation will have particular needs for different types of

[225] The Commission established the maximum permissible values for these technical parameters.

public safety communications,[226] we believe that it is appropriate for the Commission to decide, at the national level, what types of communications — *e.g.*, voice, data, image/HSD, or video — should be made *available* for assignment by the regions to public safety entities. Whether and how that spectrum is ultimately assigned by the regions is an issue that we will more fully explore in the context of discussions below regarding Channel Spacings and Channel Requirements.

128. When we allocated spectrum for public safety in 1987, we acknowledged a need for both voice and data communications.[227] The comments in response to the *Public Safety Notice*, however, suggest a vital need on the part of the public safety community for more advanced forms of public safety communications, and also maintain that this need extends beyond the context of interoperability. For example, the *PSWAC Final Report* describes numerous examples of new applications based on newly-developed technologies to serve the public safety community. The PSWAC Steering Committee uses as examples broadband data systems to provide access to databases for the police officer on patrol, the use of video systems for surveillance purposes, and robotics control of toxic or hazardous environments.[228]

129. Even if these new applications had been identified in 1987, there may not have been sufficient spectrum to accommodate them within the 6 megahertz of spectrum allocated at that time (the 821-824 MHz band, paired with the 866-869 MHz band). In the 746-806 MHz band, we anticipate having a much larger amount of spectrum available for public safety. Therefore, we believe that we should consider whether this spectrum should be used simply for basic voice and data communication, or whether there is a need to dedicate particular amounts of spectrum for image/HSD, slow motion video, and full motion video communications.

130. Therefore, we seek comment regarding what types of public safety communications should be reserved for the new band:

- Voice channels only (with data capability on such channels).
- Voice channels and data channels only.

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[226] For example, a region that contains forests may have a particular need for spectrum for the video transmission of wildfires, while a region that contains large metropolitan areas may have a need for image/HSD channels, for example, for the transmission of building blueprints to firefighting personnel.

[227] *NPSPAC Report and Order,* 3 FCC Rcd at 907 (para. 15).

[228] *PSWAC Final Report* at 2.

- Voice, data, image/HSD, slow motion video, and full motion video channels.
- Channels that would accommodate some other combination of uses.

131. Commenters advocating a channel allocation for full motion video, in particular, should indicate their reasoning for providing a separate spectrum allocation for such use, and whether an option exists of providing for full motion video through alternative means (*e.g.*, commercial video services; spectrum made available through a Federal, State, and local network).

b. Channel Spacing

132. As indicated above, when we developed rules for the assignment of the 821-824/866-869 MHz channels, we decided that the channels would be spaced 12.5 kHz apart. This decision was made based on the recommendation of NPSPAC and the comments received in the *NPSPAC Proceeding*. A matter to be addressed in this proceeding is whether the Commission should decide on appropriate spacings for the channels designated in the 746-806 MHz band, or whether we should employ a different approach to channelizing the band. One such approach might be to allow the regions to have a role in determining the spacings for channel assignments.

133. Since we adopted our procedures for the licensing of the 821-824/866-869 MHz bands in 1987, manufacturers have developed equipment using transmission technologies that were not readily available at that time, such as Time Division Multiple Access (TDMA) and Code Division Multiple Access (CDMA). In recent years, the Commission has chosen, in adopting rules for other wireless services, to assign large blocks of spectrum, and allow individual licensees to decide how to channelize their spectrum in order to best accommodate these technologies.[229] While we are not proposing the assignment of large blocks of spectrum to individual public safety licensees, our tentative conclusion to use the regional planning process anticipates making available to each region a rather sizable amount of spectrum for assignment to users in the respective regions.

134. One approach to the matter of determining channel spacing for the spectrum (herein Option 1) might be to give each region complete latitude to decide the size of channels to be licensed in the region so as to accommodate the different types of

[229] *See, e.g.*, Amendment of the Commission's Rules To Establish Part 27, the Wireless Communications Service, GN Docket No. 96-228, Notice of Proposed Rulemaking, 11 FCC Rcd 21713 (1996) (*WCS Notice*), Report and Order, FCC 97-50, at paras. 55-56 (released Feb. 19, 1997). Amendment of Parts 2 and 22 of the Commission's Rules Relative to Cellular Communications Systems, GN Docket Nos. 84-1231, 84-1233, and 84-1234, Report and Order, 2 FCC Rcd 1825, 1841 (para. 118) (1986), *recon. denied*, 2 FCC Rcd 6830 (1987).

communications and different types of technologies desired by licensees in the region. For example, a particular region could decide that the voice channels it assigns to its licensees should operate on 12.5 kHz channels or 25 kHz channels, to take advantage of a particular technology that requires the use of one of these channel spacings. A possible disadvantage to channelizing the spectrum in this way could be that individual licensees who wish to employ equipment that operates on a particular channel size may not be able to do so if the licensee's region decides that channels of that particular size will not be assigned in the region.

135. An approach to determining channel spacing that addresses this concern (herein Option 2) would be for the Commission to specify an assortment of channels of different sizes to accommodate various types of communications and technologies, and to require that the regions make these various channel sizes available for assignment. For example, we could designate both 125 kHz channels and 250 kHz channels for image/HSD communications in an effort to accommodate different existing and future image or high speed data technologies.[230] In this way, individual licensees would have at their disposal the particular channel size needed to accommodate their desired system.

136. We note that under both Option 1 and Option 2, it is likely that the same channel spacings would not be used by all regions and all licensees throughout the Nation. As a result, manufacturers developing equipment using a particular channel spacing would not have the assurance of a nationwide market for that equipment. We therefore seek comment as to the possible impact of these options on the development and production of equipment, and whether any such impact would have negative consequences for licensees. A third approach to determining channel spacing — and one that addresses this possible concern (herein Option 3) — would be for the Commission to decide, as it did in 1987, on a single, specific channel spacing for each type of communication and require that all regions assign licenses using such channels. We therefore seek comment on the best approach for determining spacings for the channels in the 746-806 MHz band.

137. If we decide that the Commission will have a role in determining the spacing of channels in the band, we seek input from commenters regarding what those channel spacings should be. At the outset, we believe that the considerations identified in Section II.B.1.d., *supra*,[231] with regard to channel spacings for interoperability channels apply to the channel spacings for the regularly assigned public safety channels in the 746-806 MHz band. We seek comment regarding whether different factors should be considered when determining channel

[230] We would ensure that regions make all designated channel spacings available to licensees through provisions of the regional planning process. *See* Section II.C.3.c., *infra*, paras. 140-152.

[231] Paras. 61-66, *supra*.

spacings for non-interoperability channels and the potential impact of specifying different channel spacings for these channels. Factors we have already identified include:

- That ensuring voice quality and clarity is an important consideration in public safety communications.
- That wider data channels will enable greater data throughput for mobile/portable data and image/HSD transmissions than will narrower channels.
- That slow motion and full motion video transmissions will ostensibly require 384 kb/sec and 1.5 Mb/sec data rates, respectively.

138. We seek specific comments on what channel spacings should be used for voice, data, image/HSD, slow motion video, and full motion video channels. We request that commenters discuss their rationale in suggesting an appropriate channel spacing for each use.

139. We also note that public safety spectrum is not subject to the market forces which promote spectral efficiency in the commercial sector. We therefore seek comment regarding Commission policies and regulations that would result in the most efficient use of spectrum for public safety communications, and would optimize the use of new, increasingly efficient technologies.[232]

c. Channel Requirements

140. In Section II.C.3.a., *supra*,[233] we seek comment on which types of general service communications should be provided for public safety users, and in Section II.C.3.b., *supra*,[234] we propose various methods for deciding on the appropriate channel spacings for channels associated with these types of communications. We now explore the issue of *how*

[232] New technologies are being developed using a variety of access techniques and related channel bandwidths. *See generally* QRC Comments at 11-12 (advocating Advanced Multimode Digital Communications for 2010 and beyond); Securicor Comments at 2 (recommending 5 kilohertz channels in a mixed-modulation environment); NTT Comments at 7-8 (proposing use of very narrowband, 5 kilohertz, equipment); Ericsson Comments at 30-31 (encouraging adoption of 6.25 kilohertz equivalent channel spacings by 1999). The TETRA standards (a TDMA scheme using four voice paths on a 25 kilohertz channel) are another example of this development. *See* Cellular and Mobile International, D. Preiser, "Open Standards for Digital Trunked Mobile Radio," May 1, 1997.

[233] Paras. 127-131, *supra*.

[234] Paras. 132-139, *supra*.

many of each type of channel — *e.g.*, voice, data, image/HSD, or video — should be designated for assignment.

141. One approach to this issue (herein Approach 1) would be to give the regions the flexibility to decide how many of each type of channel should be made available for assignment in the respective regions. If we decide that the regions will determine the channel spacings for the channels to be assigned in each region,[235] then the regions, under Approach 1, would essentially be given complete authority to develop their own "band plans" for the assignment of the 746-806 MHz general use public safety spectrum. The only requirement that we would propose to place on regions in developing their band plans would be that they provide what we would consider to be a reasonable amount of spectrum for each of the types of communication that we decide should be made available for public safety use.[236] This will ensure that no type of communication will be precluded in any region and individual licensees in each region will have a reasonable opportunity to obtain licenses to provide such communications.

142. For example, if we decide, based on the comments received in this proceeding,[237] that we should provide for some quantity of image/HSD spectrum for public safety users, then we would expect each region to provide a reasonable amount of such spectrum for its licensees from among the available spectrum. The advantage to affording regions this extensive flexibility in assigning the spectrum is that they could develop a band plan that is best suited to the needs of their communities. In this way, a region that might have a particular need for voice communications could minimize the assignment of video channels and use that spectrum for voice channels; while a region that has less of a requirement for voice communications but needs spectrum for video transmissions could create several full motion video or slow motion video channels from the available spectrum.

143. If we decide in Section II.C.3.b., *supra*,[238] that *we* (and not the regions) should determine the appropriate channel spacings for all of the types of communications (either under Option 3, where we would designate the specific channel spacing for each type of communication, or Option 2, where we would designate an assortment of channel spacings for each type of communication), we propose to require each region to designate some reasonable number of channels for each type of communication using all designated channel spacings.

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[235] See the discussion of Option 1 in para. 134, *supra*.

[236] We would determine the reasonableness of the amount of spectrum provided by the regions for each type of communication through the regional plan approval process.

[237] Comments regarding types of communication would be pertinent to this determination.

[238] Paras. 132-139, *supra*.

This would, once again, ensure that even if the majority of licensees in a particular region wish to operate a particular type of communication or employ a particular technology, there would be sufficient spectrum available for those individual licensees in the region who wish to operate a different type of communication or employ a different technology.

144. Under Approach 1, the regions would make the determination as to how many of each type of communications channel should be designated for assignment in the respective regions. In developing their band plans, regions would have the flexibility to locate particular channels anywhere within the available spectrum (except that, if adopted, regions would be constrained by our proposals[239] to require all channels for base-to-mobile communications to be placed in television Channels 63 and 64 and all channels for mobile-to-base communications to be placed in television Channels 68 and 69, and to require that when providing for paired base/mobile communications, base frequencies in Channel 63 must be paired with mobile frequencies in Channel 68 and base frequencies in Channel 64 must be paired with mobile frequencies in Channel 69).[240]

145. We tentatively conclude that such flexibility will not be problematic from a technical standpoint. That is, it is our tentative view that manufacturers will be able to produce equipment that will be capable of operating anywhere within the required spectrum bands, and that it will not be necessary for all regions to locate particular channels in the same location in the spectrum.[241] We also believe that if we adopt our proposal to require base frequencies in Channels 63 and 64 to be paired with mobile frequencies in Channels 68 and 69, respectively, then regions providing for such paired base/mobile communications will have adequate separation between base transmit and mobile transmit frequencies. However, to ensure that equipment manufactured in accordance with a region's band plan will be *available* to the region's licensees, we tentatively conclude that we should require regions developing their own band plans to include in their regional plans affidavits from any interested equipment manufacturers attesting to the fact that equipment can be designed and produced in accordance with the band plan. We seek comment on these tentative conclusions.

146. A second, more conventional approach (herein Approach 2) for determining how the general spectrum should be designated for assignment would be for the Commission to

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[239] *See* Section II.F., *infra*, paras. 170-171.

[240] If we do not adopt this proposal and instead decide, for example, that base-to-mobile channels are to be located in television Channels 68 and 69 and mobile-to-base channels are to be located in television Channels 63 and 64, then regions would have to comply with this requirement.

[241] For example, if all regions designate a 500 kilohertz mobile-to-base full motion video channel, we do not believe that it is necessary for every region to place that channel in the identical location within the 794-806 MHz band.

adopt a common band plan that would be used uniformly by all regions. This band plan would: (1) provide for all of the various types of communication that we decide are appropriate and necessary for public safety; (2) employ the channel spacings that we believe are best for the operation of each of these types of communication; and (3) provide the number of channels for each type of communication that we believe should be designated for licensing in each region. This approach would not give regions any flexibility in deciding how many of each type of channel will be available for assignment. We seek comment on this approach.

147. To retain the basic thrust of Approach 2, but still afford regions some degree of flexibility to adjust the Commission-designed band plan to meet their particular needs, we seek comment on a third approach (herein Approach 3), which would allow each of the regions to "aggregate" and "disaggregate" the various channels in the Commission band plan to formulate a band plan that contains the type and number of channels it requires. For example, if the Commission band plan contains a single 500 kilohertz video channel, regions would have the flexibility to divide that channel into 40 12.5 kilohertz voice channels; or if our band plan provides for five contiguous 25 kilohertz voice channels, regions would have the flexibility to combine those channels into a single 125 kilohertz image/HSD channel. In affording the regions this flexibility, however, we would continue to require that they designate a reasonable amount of spectrum for each of the required types of communication. We seek comment on these different approaches to determining how many channels will be made available for assignment to public safety licensees.

148. Whether it is decided that we or the regions determine the number and configuration of voice, data, image/HSD, and video channels to be assigned, we believe that certain factors must be taken into consideration. For instance, the actual spectrum we designate as the 24 megahertz of 746-806 MHz spectrum for public safety use will be an important factor in determining how the spectrum will be made available for the various different types of public safety communications.[242] Also, as discussed in a previous section,[243] there may be a particular need only for certain "one-way" forms of public safety communications. And if this is the case, then paired channels could result in various amounts of base-transmit or mobile-transmit spectrum that may be assigned, but not effectively utilized. For example, if there is a need for a mobile-to-base channel for full motion video communication, but no corresponding need for a base-to-mobile video channel, and we assign the 24 megahertz in pairs — with the lower pairs used for base-mobile communication and

[242] If, for example, television Channels 63, 64, 68, and 69 are dedicated for public safety use, we have proposed that all base-to-mobile communications be on Channels 63 and 64, and all mobile-to-base communications be on Channels 68 and 69.

[243] *See* paras. 68-70, *supra*.

the higher pairs for mobile-base communications — then the higher video channels would be actively used, but the corresponding portions of the lower spectrum would lie fallow.

149. On the other hand, if there is a need for a particular amount of spectrum for one-way, base-to-mobile communications of one type (*e.g.*, image/HSD communications), and there is a need for an approximately equal amount of spectrum for one-way, mobile-to-base communications of a different type (*e.g.*, full motion video), the public safety spectrum could be used efficiently by assigning blocks of base-transmit-only and mobile-transmit-only spectrum for such types of uses. Thus, the asymmetry of one use might be compensated for by the asymmetry of a different use.

150. If it is decided that regions will have the flexibility to identify and locate channels for assignment, they will have to take these factors into consideration in devising their band plans. If it is decided that we will devise the band plan to be used by all regions, we seek comment regarding the number of channels that should be designated for each of the following proposed uses:

- Voice transmissions (mobile-only, or base and mobile channel pairs).
- Data transmissions (base-only, or base and mobile channel pairs).
- Image/HSD transmissions (base-only, or base and mobile channel pairs).
- Slow motion video transmissions (mobile-only, or base and mobile channel pairs).
- Full motion video transmissions (mobile-only, or base and mobile channel pairs).

Recommendations made by commenters should: (1) take into account their recommendations for the amount of spectrum to be dedicated for interoperability communications (*i.e.*, if commenters suggest 4 megahertz of spectrum for interoperability, they should suggest no more than 20 megahertz for general public safety spectrum); and (2) reflect their view of our proposal[244] to dedicate no more than 12 megahertz for base-to-mobile communications and no more than 12 megahertz for mobile-to-base communications (*i.e.*, recommendations made by commenters for the number of channels to be dedicated for the various types of public safety transmissions should reflect the particular base-to-mobile/mobile-to-base channel distribution that they favor).

151. Another factor that we must consider in deciding on appropriate channelization plans for the four different types of public safety communications is whether there is

[244] *See* Section II.F., *infra*, paras. 170-171.

sufficient demand for each to warrant the exclusive assignment of channels for this purpose. Because of the unquestioned need for voice and data communication by public safety users, and given the rather large amount of public safety spectrum that will be available in the 746-806 MHz band, we will almost certainly want to dedicate sufficient voice and data channels to enable all such channels to be assigned on an exclusive basis. We also note that exclusivity readily permits use of trunking,[245] and encourages investment in spectrum-efficient technology and in efficient use generally.[246]

152. There may not be sufficient ongoing demand, however, for wider-band data channels for imaging or video to justify exclusive assignments of this amount of spectrum to a single user within a particular area. Spectrum for video transmissions, in particular, might be easily shared among multiple licensees in a given area, so long as there is some type of sharing mechanism in place for use of such channels. Another possible means of limiting the portion of the spectrum that may have to be designated for video communication would be for public safety licensees to obtain access to video spectrum from commercial providers. In this context, we invite comment as to whether voice, data, image/HSD, or video channels could or should be shared among public safety entities within a given area, or whether all assignments should be made on an exclusive basis.

d. Transmission Technology

153. In Section II.B.1.c., *supra*,[247] we discuss the issue of whether digital or analog FM modulation should be used on public safety interoperability spectrum in the 746-806 MHz band. We emphasize the important need for public safety users to communicate with one another on the interoperability channels, and discuss how such communication might be facilitated through the use of common standards on those channels.

154. A related issue is whether there is a need to mandate a particular transmission technology on the regularly assigned public safety channels. If we allocate some number of channels that would be used exclusively for interoperability communications, then licensees would presumably use their regularly assigned channels solely for internal communications. We believe it would be preferable to give public safety licensees the ability to choose among available analog or digital technologies on their own authorized channels. In this way, public safety licensees will be able to select the equipment and technology that provide the features

[245] *See generally Refarming Second Report and Order*, at paras. 56-59 & n.143.

[246] Exclusivity encourages efficiency because users benefit directly from any capacity saved or created. *See Refarming Report and Order*, 10 FCC Rcd at 10134-35 (para. 130).

[247] Paras. 53-60, *supra*.

they desire in the same way current commercial licensees select the type of technology that meets their needs.[248]

155. While we are not inclined to require any particular transmission technology, *e.g.*, analog or digital, to be mandated for voice, data, image/HSD, or video transmissions in the portion of the public safety spectrum in the 746-806 MHz band not used for interoperability, we seek comment on this approach. Also, we solicit views as to whether our proposal to require compliance with a trunking standard for the interoperable channels may impede the availability of alternative technologies for the remaining public safety spectrum. For example, we invite comment on the technical feasibility and cost impact of designing equipment that can operate using multiple transmission technologies.

e. Equipment Standards

156. In Section II.B.1.f., *supra*,[249] we indicate the need to provide for effective, high quality voice and data communications on the interoperability channels, and discuss the issue of whether standards should therefore be adopted for receivers operating on the interoperability channels. We tentatively conclude that there is no correlative need to mandate receiver standards on the non-interoperability public safety channels. Equipment operating on those channels will be used by licensees for their internal communications. The quality of the receivers will only affect the licensee and not interoperability with other public safety organizations.

157. It is our tentative view that licensees are in the best position to determine whether the receiver performance satisfies their needs. Further, receiver standards could unnecessarily increase costs to small public safety facilities that may not have the same requirements as facilities in other locations. In this regard, we invite comment as to whether standards governing the performance of receivers on the interoperability channels would become *de facto* standards for all the channels that the radio receives, and as to whether this factor should affect our decisions regarding receiver standards for interoperability channels and for general public safety channels. We would expect the same receiver to be used for communications on both the interoperable and non-interoperable channels. We seek comment on this issue. Those commenters recommending mandatory standards should indicate the technical parameters to be standardized.

[248] For example, cellular and SMR licensees employ both digital and analog systems; and cellular licensees operate digital systems using both TDMA- and CDMA-based technologies. Also, as indicated in note 232, *supra*, new technologies are being developed using a variety of access techniques and related channel spacings.

[249] Paras. 71-73, *supra*.

158. We also have sought comment on various approaches for providing for the operation of interoperability channels in radio equipment.[250] One such option is to require all public safety mobile and portable radios operating in the 746-806 MHz band to be capable of operating on all voice and data interoperability channels in the band. We now seek comment on the related issue of whether, if technically feasible, we should require all public safety mobile and portable radios operating in the 746-806 MHz band to be capable of operating on all public safety and commercial channels in the band. The use of equipment capable of operating on the entire 746-806 MHz band could enable public safety users to employ commercial spectrum when and where such spectrum is available from commercial providers.

D. Technical Parameters for All Public Safety Channels and Operations in 746-806 MHz Band

159. In this Section, we discuss various technical parameters that are associated with the operation and use of both the interoperable and general public safety channels. These parameters must be quantified in order to ensure the effective, efficient, and interference-free operation of these channels.

1. Bandwidth

160. As discussed in Sections II.B.1.d., *supra*,[251] and II.C.3.b., *supra*,[252] there are various different channel spacings that could be authorized for the public safety channels designated for voice, data, image/HSD, and video communications. Our rules specify the maximum authorized bandwidths for channels with different channel spacings. For example, the maximum authorized bandwidth for the 25 kilohertz channels[253] in the 806-821 MHz band is 20 kilohertz, the maximum authorized bandwidth for the 12.5 kilohertz channels in the 821-824 MHz public safety band is also 20 kilohertz, and the maximum authorized bandwidth for the 12.5 kilohertz channels in the 896-901 MHz band is 13.6 kilohertz.[254]

161. We therefore seek comment as to the maximum authorized bandwidths which should be specified for different types of general and interoperability communications. For example, if voice or data channels are spaced 12.5 kilohertz apart, should the maximum

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[250] *See* paras. 72-73, *supra*.

[251] Paras. 61-66, *supra*.

[252] Paras. 132-139, *supra*.

[253] Here, "25 kilohertz channels" means channels that are spaced 25 kilohertz apart.

[254] *See* Section 90.209 of the Commission's Rules, 47 C.F.R. § 90.209.

authorized bandwidth be 13.6 kilohertz (as currently provided for 12.5 kilohertz channels in the 896-901 MHz band), or 11.25 kilohertz (as currently provided for 12.5 kilohertz channels in the 150-174 MHz and 421-512 MHz bands); and if voice or data channels are spaced 25 kilohertz apart, should the maximum authorized bandwidth be 20 kilohertz (as currently provided for 25 kilohertz channels in the 806-821 MHz band)? In addition we invite comment regarding the maximum authorized bandwidth that should be specified for data, image/HSD, or video channels of various channel spacings — *e.g.*, 50 kilohertz data channels, and 125 kilohertz image/HSD or video channels.

162. We note also that we are seeking comment on an approach for determining channel spacings that would allow individual regions to decide the spacings for the general use channels assigned in their region.[255] If we decide to permit regions to determine the spacings of their channels, we propose to require the regions to identify the maximum authorized bandwidths that would be associated with those channels. These bandwidths would be identified in the regional plan, and therefore subject to Commission approval. We also propose that the regions, in providing these bandwidths, include affidavits from any interested equipment manufacturers, attesting to the appropriateness of the bandwidths. We seek comment on these proposals.

2. Emission Mask; Frequency Stability; Power and Antenna Height

163. Part 90 of the Commission's Rules specifies the required frequency stability, emission mask, and authorized power and antenna height for channels used in the various private land mobile bands.[256] As with the authorization of maximum bandwidth, we seek comment regarding these parameters for the channels used for the four types of general and interoperability public safety communications.

164. We seek comment regarding the particular emission masks that should be specified for voice or data channels that may be spaced 12.5 kilohertz and 25 kilohertz apart — *e.g.*, for channels spaced 12.5 kilohertz apart, whether the masks used for the 150-174 MHz and 421-512 MHz band,[257] the 821-824 MHz band,[258] or the 896-901 MHz band[259]

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[255] *See* para. 134, *supra*.

[256] *See* Sections 90.210, 90.213, and 90.635 of the Commission's Rules, 47 C.F.R. §§ 90.210, 90.213, 90.635.

[257] Mask D in Section 90.210 of the Commission's Rules, 47 C.F.R. § 90.210.

[258] Masks B and H in Section 90.210 of the Commission's Rules, 47 C.F.R. § 90.210.

[259] Masks I and J in Section 90.210 of the Commission's Rules, 47 C.F.R. § 90.210.

should be specified; and for channels spaced 25 kilohertz apart, whether the emission mask used for the 150-174 MHz and 421-512 MHz band,[260] or the 806-821 MHz band should be specified.[261] We also seek comment regarding whether the frequency stability parameters specified for transmissions in the 806-821 MHz band[262] should be used for transmissions on the public safety channels in the 746-806 MHz band, or if not, whether some other frequency stability parameters should be specified.

165. In addition, we seek comment regarding whether the power and antenna height limitations currently specified for operation in the 800 MHz and 900 MHz bands[263] should be used for operations on the public safety channels in the 746-806 MHz band, or if not, whether some other power and antenna height limitations should be specified. Finally, as we have discussed,[264] we may permit regions to determine the spacings of their general use channels. If we do so, we propose to require the regions to identify the emission masks and frequency stabilities that would be associated with those channels. These parameters would be identified in the regional plan, and therefore subject to Commission approval. We also propose that the regions, in providing these parameters, include affidavits from any interested equipment manufacturers, attesting to the appropriateness of the parameters. We seek comment on these proposals.

3. Base Station Protection

166. Section 90.621(b) of the Commission's Rules specifies the co-channel protection to be provided to base stations operating in the 800 MHz and 900 MHz bands.[265] However, when we adopted the *NPSPAC Report and Order*, we decided that individual regional planning committees should determine base station assignments so as to achieve maximum frequency re-use. We therefore seek comment on whether the Commission should specify the protection criteria that would apply to all exclusively assigned base stations operating on the

[260] Masks B and C in Section 90.210 of the Commission's Rules, 47 C.F.R. § 90.210.

[261] Masks B and G in Section 90.210 of the Commission's Rules, 47 C.F.R. § 90.210.

[262] *See* Section 90.213 of the Commission's Rules, 47 C.F.R. § 90.213.

[263] *See* Section 90.635 of the Commission's Rules, 47 C.F.R. § 90.635.

[264] *See* para. 162, *supra*.

[265] Co-channel protection refers to the interference protection that a particular licensee provides to another licensee operating on the same channel in the same geographic area. The protection criteria are designed to minimize the likelihood of interference to base/mobile communications on the channels in the 800 MHz and 900 MHz bands, which are assigned to licensees on an exclusive basis.

public safety channels in the 746-806 MHz band, or whether we should allow base stations to be assigned in accordance with protection criteria established in the regional plans.[266] Commenters supporting the establishment of uniform protection criteria should indicate whether they believe that the existing protection criteria for the 800 MHz and 900 MHz bands are appropriate, or whether some other standards should be applied.

E. Construction Requirements

167. Under Part 90 of the Commission's Rules, licensees that are not providing Commercial Mobile Radio Service (CMRS) are generally required to construct their authorized stations and place them in operation within eight months of license grant.[267] There are, however, exceptions to this rule. For example, licensees who are authorized trunked systems in the 800 MHz and 900 MHz bands have 12 months to place their stations in operation;[268] all local government entities may, on a case-by-case basis, be granted longer than eight months to complete the construction of their systems;[269] and non-SMR licensees in the 800 MHz and 900 MHz bands may be permitted, under certain conditions, up to five years to place their systems in operation.[270]

168. We seek comment on the appropriate construction deadline for licensees operating on the public safety spectrum in the 746-806 MHz band, including comment on factors that we should consider in establishing construction deadlines that will best promote the timely deployment of public safety facilities. For example, comment is requested on whether licensees operating conventional or trunked systems should be required to construct their stations within eight months or 12 months, respectively, and whether all public safety licensees operating in the band should be afforded the extended implementation provisions currently provided licensees operating in the 800 MHz and 900 MHz bands.

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[266] *See NPSPAC Report and Order*, 3 FCC Rcd at 911 (para. 51); Section 90.621(g) of the Commission's Rules, 47 C.F.R. § 90.621(g). Under this approach, regional planning committees would determine the protection criteria that are appropriate for the stations operating in their particular geographic areas.

[267] *See* Section 90.155(a) of the Commission's Rules, 47 C.F.R. § 90.155(a).

[268] *See* Section 90.631(e) of the Commission's Rules, 47 C.F.R. § 90.631(e).

[269] *See* Section 90.155(b) of the Commission's Rules, 47 C.F.R. § 90.155(b).

[270] *See* Section 90.629 of the Commission's Rules, 47 C.F.R. § 90.629. To qualify for "extended implementation" under this rule, a licensee may demonstrate, for example, that it follows a multi-year cycle for the planning, approval, funding, and purchasing of its system; or that it requires additional time to construct its proposed system due to the size, purpose, or complexity of the system.

169. Alternatively, given that many public safety agencies will be able to qualify for extended implementation periods due to the fact that they follow a multi-year cycle for the planning, approval, funding, and purchasing of their systems, commenters should address whether we should uniformly provide for construction deadlines of two or three years for *all* public safety entities operating in the 746-806 MHz band, with up to five years authorized for licensees demonstrating a need for such additional time. Commenters should address not only the unique needs of public safety agencies, but also consider the appropriate construction period to ensure that licensees are actually using their authorized spectrum.

F. Use of Television Channels 63, 64, 68, and 69 for Public Safety

170. In the *Allocation Notice* we proposed the use of television Channels 63, 64, 68, and 69 for public safety. In that proceeding we indicated that public safety systems typically require some minimum separation between transmit and receive frequencies, and that this proposed allocation of television channels would provide adequate separation.[271] If we decide in that proceeding to dedicate these particular television channels to public safety, then, to facilitate two-way, base/mobile communications, we propose that: (1) the frequencies in Channels 63 and 64 (764-776 MHz) be used for all base-to-mobile transmissions; (2) the frequencies in Channels 68 and 69 (794-806 MHz) be used for all mobile-to-base transmissions;[272] and (3) when providing for paired base-to-mobile and mobile-to-base communications, any base frequencies in Channel 63 should be paired with mobile frequencies in Channel 68 and any base frequencies in Channel 64 should be paired with mobile frequencies in Channel 69.

171. We favor this approach for two reasons. First, it will provide for approximately 30 megahertz of separation between base and mobile frequencies.[273] Second, because Channels 68 and 69 are directly below the 806-824 MHz band, which contains the transmit frequencies for mobile and portable radios operating in the 806-824/851-869 MHz bands, we believe that, from a design standpoint, it may facilitate the rapid development of mobile and portable 746-806 MHz radios, at a reasonable cost, to be able to employ transmit frequencies from the adjacent 794-806 MHz band. In advancing this proposal we note that the first harmonic of transmissions on Channels 68 and 69 will fall in the frequency band currently

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[271] *Allocation Notice*, at para. 11.

[272] As discussed in Sections II.B.1.e., *supra*, paras. 67-70, and II.C.3.c., *supra*, paras. 140-152, we may provide spectrum for paired, two-way (base-to-mobile and mobile-to-base) communications, and one-way (mobile-to-base or base-to-mobile) communications.

[273] Because the exact location of channels for the various types of public safety transmissions within Channels 63, 64, 68, and 69 may vary from region to region, the separation between paired base-to-mobile and mobile-to-base frequencies may not be exactly 30 megahertz.

used by the Global Orbital Navigation Satellite System (GLONASS). Public safety mobile and portable radios that would operate on Channel 68 and Channel 69 frequencies could therefore cause interference to devices attempting to receive signals from the GLONASS satellites. We seek comment on our proposals and, in particular, we ask commenters who may utilize signals from the GLONASS satellites to discuss any concerns they may have about the possible use of Channels 68 and 69 for mobile-to-base public safety communications.

III. PRIORITY ACCESS SERVICE

A. Introduction

172. Under Section 1 of the Communications Act, the Commission has a statutory mandate "to make available a rapid, efficient Nation-wide . . . communications service for the purpose of the national defense, [and] for the purpose of promoting safety of life and property . . . ."[274] In view of the importance of this mandate, we believe that we need to determine the most efficient means of providing access to communications infrastructures in order to deal with emergency and disaster situations. We further believe that this course should encourage the telecommunications industry, in a continued, cooperative effort with other Federal Government agencies and public safety entities, and take advantage of rapidly developing technology in order to solve problems of access in such situations.

173. As we consider the need for such cooperative efforts, we note that certain Federal Government entities are stressing that there is a growing need to use commercial services rather than dedicated systems, due to the potential for lower costs of commercial services. These entities also note that 75 percent of these entities' needs can be met by commercial systems.[275] In light of these considerations and in order to explore all possible means of promoting efficient and effective public safety communications, we have decided to begin, with the adoption of this Notice, a formal examination of the concept of priority access service on commercial systems for personnel responding to emergency and disaster situations.

B. Background

174. The Department of Defense, as executive agent of the National Communications System (NCS), filed on October 19, 1995, a Petition for Rulemaking (Petition) on behalf of NCS, requesting the Commission to initiate a rulemaking proceeding to implement Cellular

[274] 47 U.S.C. § 151.

[275] *See* Proceedings of the Seventh Federal Wireless Users' Forum Workshop, May 20-22, 1997 (*FWUF. Workshop*), at 1-2.

Priority Access Service (CPAS).[276] According to NCS, the term "priority access" means that in emergencies, when cellular spectrum is congested, authorized priority users would gain access to the next available cellular channel before subscribers not engaged in national security and emergency preparedness (NSEP) functions.[277]

175. Following the Commission's issuance of the *Public Safety Notice*, the Wireless Telecommunications Bureau (Wireless Bureau) released a Public Notice seeking comment on the NCS Petition and asking interested parties to address the extent to which the issues raised in the NCS Petition are related to the public safety rulemaking proceeding.[278] The Commission received 20 comments and five reply comments in response to the *CPAS Public Notice*.[279] Subsequent to the receipt of those comments, the Defense Information Systems Agency (DISA) filed a letter on behalf of NCS, submitting additional information concerning the CPAS proposal.[280]

1. NCS Petition for Rulemaking

176. NCS contends that cellular usage by the general public in emergency situations leads to congestion in the cellular network, severely curtailing usage by those with NSEP responsibilities. NCS asserts that priority access to cellular spectrum is essential in conducting response and recovery efforts of NSEP personnel at Federal, State, and local levels.[281] The NCS petition, however, does not ask the Commission to make CPAS mandatory. Instead, NCS proposes that CPAS would be a voluntary offering of cellular carriers who would then be subject to mandatory CPAS rules should they elect to provide the

[276] NCS is an organization created by Executive Order to administer and manage the telecommunications assets of 23 Federal organizations in serving the national security and emergency preparedness (NSEP) needs of the Federal Government as well as State and local governments. *See* Executive Order 12,472, Assignment of National Security and Emergency Preparedness Telecommunications Functions, 49 Fed. Reg. 13,471 (1984). *See also* NCS Petition at 1-2 n.1.

[277] NCS Petition at 2.

[278] Public Notice, Petition for Rulemaking Filed, Commission Seeks Comment on Petition for Rulemaking filed by National Communications System, DA 96-604, WT Docket No. 96-86 (released Apr. 18, 1996) (*CPAS Public Notice*).

[279] A listing of pleadings and short title references to each party are contained in Appendix B of this Notice.

[280] *Ex Parte* Letter, filed Mar. 14, 1997 (DISA Letter). The filing was made part of the record in WT Docket No. 96-86.

[281] NCS Petition at 10, 13.